

*From the desk of*

BOB LOCKE

To: J. L. Wright

02097263

In light of the asbestos in Vermiculite, I thought the attached data on high concentration of airborne "fines" in 42 and 43 might be important. Supposedly not present, they run as high as 6% by weight, disperse freely, and are pretty "inhalable". I attach two extra copies if you wish to inform anyone in Engineering and Manufacturing.

RHL: c1  
11/5/75

15084719

**ZONOLITE**  
STRUCTURAL PRODUCTS DIVISION

02097264

November 5, 1975

TO: J. L. Wright

SUBJ: Vermiculite Sieve Analysis -- #2 and #3 Ore

cc: B. R. Williams  
O. M. Favorito

As a part of the AFII project, I needed to determine current sieve analysis of #2 and #3 vermiculite as delivered in order to assess the dusting problem. Attached is Len Feldman's report on the results of random delivered #2 and #3 samples from three different ZONOLITE expanding plants. I am passing this information on to you because: a) the data is of a "one-off" nature, no sieve analysis being routinely done or reported at expanding plants; and, b) although I obtained the data for a narrow, specialized purpose, it may (or may not) be of general interest. Reference #29 CFR Part 1910, Docket #H-033, "Proposed Standard for Occupational Exposure..."

The results may be summarized as follows:

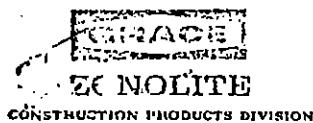
- I. Bag weights and densities, a result of the wide range of fines present, would be apparent to any customer handling unopened bags. (See Table I.)
- II. Libby #2 is within ZONOLITE screen analysis specifications. However, finer sizes are near the maximum limits. About 1% by weight is fines not supposedly present. Obviously, this 1% looks like a lot more than 1% when the bag is poured. (See Table II.)
- III. Libby #3 is generally near minimum specifications for coarse sizes although one sample was under minimum specification. Fines not in specification are 1% to 2%. Bulk density (reflecting this) was high. (See Table III.)
- IV. SC #3 exceeds specifications for fine sizes and is at minimum specification for coarse sizes. Also, fines not in specification are 3% to 6% by weight. Reflecting the very fine #3 mix (technically it is not #3), the bulk densities are all over maximum specification. (See Table IV.)

As we know, breakdown occurs in bagging, handling, shipping, etc. However, the above unique data depicts our current #2 and #3 material as randomly delivered from three plants.

*Bob*  
R. H. Locke

RHL:CJ  
attachment

15084720



02097265

November 18, 1975

TO: J. L. Wright

SUBJ: Vermiculite Over Hot Ladles

cc: B. R. Williams

In connection with the AFII equipment, I had work underway on determining sieve size analysis of #2 and #3 vermiculite. I reported on the "fall-out" of this in a note November 5.

I also had work underway on seeing how susceptible vermiculite particles were to air currents. The results are now in on the latter (attached) and they are interesting even after the fact. I discussed the data with Art Feiser today. Compared with a benchmark 1000 fpm over a ladle, and ignoring blower breakdown of vermiculite particles, about one-third of L#2 would have been blown away and about all of L#3.

A handwritten signature that appears to read "Bob".

R. H. Locke

RHL:cj

Attachment

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